LGL-3-14
1478
347
LL

UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE

Monthly Report, June - July 1935

By R. T. Webber
July 22, 1935

Satin Moth Investigations in the Northwest - U.S.

The work of the past two months concerns the field observations of infested areas and the collection of larvae and pupae and their subsequent rearing for parasite recovery.

FIELD OBSERVATIONS

The principal woodland infestations observed by me lie between Everett and Bellingham and are centered about the tributaries of the Stilgnomish and Skagit rivers. Willow appears to be the most favored food plant. The largest single tract of practically complete defoliations is a few miles north-east of Seattle in the Sammamish river valley, an area approximating 100 acres, and comprised chiefly of willow growth. Other woodland infestation of an acre or more which have developed to the extent of complete defoliation occur in Pierce county, (Summer, Greendale and South Tacoma) and in Cowlitz county at Longview. It is interesting to note that in these areas, the native cottonwood (P. trichocarpa) is the favored food plant. Much smaller woodland infestations of defoliating proportions exist elsewhere.

Infestations in the residential sections outnumber those found in the woodlands. Partial to complete defoliation of Lombardy, white poplar (P. alba L.), Carolina poplar and willow (sp.?) have been frequently observed throughout the infested region.

LARVAL COLLECTIONS

Larval collections have been made from 38 localities. Since these collections are made at random, most of them consist of about 90% last instar

larvae (6th and 7th) and a few 5th. A few of the collections are of less than 100 individuals and in others (Tacoma, Sumner, etc.) as many as 500 individuals are concerned.

The extreme points of the collections are Longview,(south); Burlington (north); Enumclaw (east); Hoquiam (west). All other collection points lie within these extremes.

RECOVERIES

Apanteles solitarius has been recovered from these collections in a few cases but if the early larval collections are considered it can be said to be in great abundance wherever S. salicis is found.

Compsilura concinnata has been recovered from 14 points, the most northern being Burlington; southern Greendale; eastern, North Bend and Enumclaw; western, Olympia. At Tacoma only, does Compsilura appear to be well established.and abundant.

Meteorus sp. has been recovered from 10 localities (5 additional places if the early larval collections are considered; also possibility of more localities when the dissections are completed) within the limits of Kirkland (north); Chehalis (south); Enumclaw (east); Greedale (west).

Tachinomyea sp. and Exorista (Tachina) mella Walk. Both native tachinid species, the former has been recovered in small numbers from nearly every point, the latter from but a few.

PUPAE COLLECTIONS

Collections of 100 or more pupae from each of the 15 points situated within the range given for the larval collections have been made. The results of these rearings are incomplete but to date no species other than Exorista (Tachina) mella Walk., Compsilura and an unknown tachinid species have issued.

MISCELLANY

Colonization of Parasites

The Compsilura puparia, obtained from the larval collections amounted to about 500 individuals. This material was colonized at Longview, Washington on July 17, 1935, the colony consisting of about 200 adults (some of which had mated) and 227 puparia. The liberation appeared favorable, all of the flies being capable of flight, a few host larvae still in the field and fair weather prevailing.

Meteorus sp. obtained from the same source as the above and also from the field amounted to approximately 500 individuals of which 150 adults and 252 cocoons were liberated at Longview, Washington on July 17, 1935. The liberation appeared favorable, all of the adults were capable of flight and weather conditions favorable.

PHOTOGRAPHS

A number of photographs of the various points, infested areas, defoliated trees, etc. have been obtained and will be submitted with a later report.